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EXAMINER

FLEURANTIN, JEAN B

ART UNIT	PAPER NUMBER
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2162

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

09/827,738

Applicant(s)

HARVEY, RICHARD HANS

Examiner

JEAN B. FLEURANTIN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 8-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 22-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/21/07, 8/14/07 & 06/13/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This is in response to election and Applicant(s) arguments filed on 11/30/2007.

The following is the current status of claims:

Claims 8-21 have been withdrawn.

Claims 1-7 and 22-28 remain pending for examination.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 08/21/2007, 08/14/2007 and 06/13/2007. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Applicant's arguments filed 11/30/2007 and 08/14/2007, with respect to claims 1-7 and 22-28 have been fully considered but they are not persuasive for the following reasons, see sections I (response to arguments) and II (repeated rejections).

Response to Arguments

I. Applicant's arguments, 08/14/2007, start from page 9 through page 18.

Applicant's arguments with respect to the pending claims have been fully considered but they are not persuasive in part. Because, the prior art of record discloses the claimed limitations as set forth.

Applicant's arguments, page 9, section (Claims Objections)

"The Examiner objects to Claims 1-21 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Specifically, with regard to independent Claims 1, 8, 13, 14, and 18, the Examiner states that the claims "fail to produce a useful and tangible result." (Office Action, pages 2-4)."

Applicant's arguments, with respect to the claims rejection(s) (under 35 U.S.C. § 101) have been fully considered are persuasive. The 35 U.S.C. § 101 rejection(s) of remaining claims 1-7 and 22-28 has (have) been withdrawn.

Applicant's arguments, page 10, section (103 Rejection)

In response to applicant's argument, page 13, that "The Examiner also relies on the proposed Leung-Rumbaugh combination to reject independent Claims 1, 13, 14, and 18. Applicant respectfully submits, however, that the proposed Leung-Rumbaugh combination does not disclose, teach, or suggest each and every element of Applicant's independent Claims 1 and 14."

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the instant application relates to a

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relational database management system (RDBMS) provides facilities for applications to store and manipulate data; see specification, page 1, lines 15-21.

Accordingly, Leung discloses the DIT table holds (storing) the information of the structure of the DIT; see Fig. 6 table DIT; page 739, col. 1, paragraph 1, lines 3-4.

Rumbaugh discloses a database management system, data model, page 367; see para 17.1.

Further, page 368, lines 6-10, Rumbaugh discloses the conceptual schema integrates related applications and hides the peculiarities of the underlying DBMS, the internal schema deals with the limitations and features of a specific DBMS, the internal schema level consists of actual DBMS code required to implement the conceptual schema.

Therefore, the combination of Leung in view of Rumbaugh discloses the claimed limitations.

Furthermore, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Therefore, Leung discloses "a method of arranging and searching for data in a database" (page 736, col. 1, paragraph 4) comprising "creating a first table adapted for storing data" (i.e., the DIT table holds (storing) the information of the structure of the DIT; see Fig. 6 table DIT; page 739, col. 1, paragraph 1, lines 3-4) comprising at least one data entry" (i.e., attribute type; see page 739, col. 1, paragraph 1, line 10), "the data entry comprising a plurality of data components" (i.e., entry is made up of attributes, each with a type and more values; see page 737, col. 1, paragraph 2, lines 5-6), "the first table comprising one row for each entry" (see Fig. 6 DIT).

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MPEP 2111: During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification" Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969). The court found that applicant was advocating ... the impermissible importation of subject matter from the specification into the claim. See also In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (The court held that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. Rather, the "PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definition or otherwise that may be afforded by the written description contained in application's specification.").

The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

For the above reasons, it is believed that the last Office Action dated 22 May 2007 was proper. Therefore, the rejection is maintained.

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Claim Rejections - 35 USC § 103

II. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over C.M.R. Leung, "An object-oriented approach to directory systems - 1990 - pages 736-740" ("Leung") in view of J. Rumbaugh et al., "Object-Oriented Modeling and Design" - 1991 - pages 366 - 396" ("Rumbaugh").

As per claim 1, Leung discloses "a method of arranging and searching for data in a database" (page 736, col. 1, paragraph 4) comprising:

"creating a first table adapted for storing data" (i.e., the DIT table holds (storing) the information of the structure of the DIT; see Fig. 6 table DIT; page 739, col. 1, paragraph 1, lines 3-4) comprising at least one data entry" (i.e., attribute type; see page 739, col. 1, paragraph 1, line 10), "the data entry comprising a plurality of data components" (i.e., entry is made up of attributes, each with a type and more values; see page 737, col. 1, paragraph 2, lines 5-6), "the first table comprising one row for each entry" (see Fig. 6 DIT); and

"second table comprising one row for each of the plurality of data components" (i.e., entry is made up of attributes, each with a type and more values; see Fig. 6, ENTRY; page 737, col. 1, paragraph 2, lines 5-6); and;

"searching the rows of the second table to identify a particular one of the plurality of data components" (i.e., directories services: search; page 737, col. 2, paragraph 1); and

"returning the given data entry from the first table that includes the particular one of the plurality of data components" (i.e., returns the results; page 737, col. 2, last paragraph).

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Leung fails to explicitly disclose creating a second table storing data components and having one row for each component of the data. However, Rumbaugh discloses creating a second table storing data components and having one row for each component of the data (see Rumbaugh Figs. 17.12 and 17.13, pages 380-381, paragraph 17.3.5). It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the method of Leung by creating a second table storing data components and having one row for each component of the data as disclosed by Rumbaugh (see Rumbaugh Fig. 17.2, page 370, paragraph 17.2.3 and Fig. 17.16). Such a modification would allow the method of Leung to provide an excellent basis for modeling object oriented data base management system (DBMS) (see Rumbaugh page 388, paragraph 17.5), therefore, improving the performance of the directory searching methods and system.

As per claim 2, Leung discloses "the data is a structured data type" (i.e., attribute type; see page 739, col. 1, paragraph 1, line 10).

As per claim 3, Leung discloses "the data is a string data type" (i.e., attribute type; see page 739, col. 1, paragraph 1, line 10).

As per claim 4, Leung discloses "the data is or represents a X.509 certificate" (i.e., DSEP decodes the request and passes the decoded request in the form of Directory Abstract Services with the appropriate parameters to DOP; see figure 2, page 737, col. 2, paragraph 5).

As per claims 5 and 26, Leung discloses "a selected one of the data components is a checksum or fingerprint" (i.e., a means for collecting the results; see page 738, col. 1, paragraph 1).

As per claims 6 and 23, Leung discloses "where the database is a pm of an electronic directory services system" (i.e., the database systems used form an indispensable part of the directory systems; see page 736, col. 1, paragraph 4, lines 4-5).

As per claim 7, Leung discloses "where the electronic directory services system comprises an X.500 and LDAP services system" (i.e., a directory (X.500) consists of one or more distributed Directory System Agents where directory information is kept and user requests are proposed, the DIT and DIB are partitioned and distributed in these DSAs each DSA also holds knowledge of the distribution of the DIT all requests in the form of directory abstract services from directory users must be submitted through Directory User Agents acting as the interface between the users; see Fig. 2 page 737, paragraphs 2 and 3).

As per claim 22, in addition to claim 1, Leung further discloses "a method of searching a database for given data entries" (see page 738, col. 1, paragraph 4);

"identifying a component identifier indicating a data type that is associated with the component of the first table" each record holds the system identifier of an object and an attribute value of an attribute type of the object in both normalized and raw form (see page 739, col. 1, paragraph 1);

"using the component identifier indicating the data type to execute one of an exact or initial matching on a column of a second table in order to locate the component in the second table" (i.e., record contains the system identifier of an object and the RDNs are coded in such a way that matching them can be done efficiently (see page 739, col. 1, paragraph 1); and

"returning the given data entry from the first table matching the component located" (i.e., returning details of ENTRYs satisfying search conditions; see page 739, col. 1, paragraph 2).

As per claim 24, Leung discloses "an X.500 and LDAP services system" (i.e., X.500; see page 739, col. 1, last paragraph).

As per claim 25, in addition to claim 4, Leung discloses "the data is or represents one or more of the following: a X.500 certificate, and a check sum of the data and or a fingerprint of the data" (see page 736, col. 1, paragraph 4).

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As per claim 27, the limitations of claim 27 are similar to claim 5, therefore, the limitations of claim 27 are rejected in the analysis of claim 5, and, this claim is rejected on that basis.

As per claim 28, Leung further discloses "components of the checksum or fingerprint are searched" (i.e., means for collecting the results it passes them to DSEP in the form of directory abstract services results (see page 738, col. 1, paragraph 1).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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CONTACT INFORMATION

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN B. FLEURANTIN whose telephone number is 571 – 272-4035. The examiner can normally be reached on 7:05 to 4:35.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571 – 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jean Bolte Fleurantin

Primary Examiner

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